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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/819,671      | 03/29/2001  | Yoshinori Miwa       | 684.3160            | 3160             |

5514 7590 01/15/2003

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EXAMINER

BROWN, KHALED

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2851

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/819,671

Applicant(s)

MIWA ET AL.

Examiner

Khaled Brown

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21, 24, 52-57 and 61-63 is/are allowed.
- 6) ☒ Claim(s) 22, 27-51, 58, 59, 64, 65, 67, 68, 70 and 71 is/are rejected.
- 7) ☒ Claim(s) 23, 26, 60, 66, 69 and 72 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the number of amendments render it difficult to arrange the papers for printing and copying.

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.

### ***Information Disclosure Statement***

Note: a copy of the IDS filed 7-31-01 was include with the previous office action and is also being attached to this office action. No other IDS has been filed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

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(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 22,27-51,58,59,64,65,67,68,70 and 71 are rejected under 35

U.S.C. 102(e) as being anticipated by Murayama et al (US 6341006).

Re clms 22,31: Murayama et al discloses an exposure apparatus (Fig 16) to be used with an excimer laser as a light source (201), said apparatus comprising: first (S2) and second (242a) chambers for maintaining a predetermined gas ambience (pressure) at a path of excimer laser light, wherein said second chamber is adapted to enclose a masking blade (208), and an optical member (254) made of a fluorine compound (Col 22 line 29).

Re clms 28,29: different ambiences (pressure Col 21-Col 22).

Re clm 30: helium (Col 15 line 20) nitrogen (inert gas Col 21 line 66)

Re clms 32,33: gas supply port (224) and gas discharging port (225)

Re clms 34,35: third chamber (the room in which the exposure apparatus sits) and temperature control (Col 25 lines 49-52)

Re clm 36: a gas of purity (Inherent in clean room Col 23 line 60)

Re clm 37: gas discharged (Col 23 line 61)

Re clm 38: nitrogen is supplied to the third chamber (Inherent result of gas being purged from from S1)

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Re clms 39: Murayama et al discloses an exposure apparatus (Fig 16) to be used with an excimer laser as a light source (201), said apparatus comprising: first (S2) and second (242a) chambers for maintaining a predetermined gas ambience (pressure) at a path of excimer laser light; and a movable member (223) for connecting said first and second chambers with each other, to secure gas tightness and to enable absorption of relative displacement between said first and second chambers (Col 21-Col 22).

Re clm 40: a gas discharge mechanism (225)

Re clms 41,42,46,47: inactive gas (nitrogen)

Re clm 43: bellows (223)

Re clm 44: Murayama et al discloses an exposure apparatus comprising: an optical system, having a plurality of optical elements (Fig 8), including a reflection member (210) and a plurality of refraction members (202, 204,207,211,243a-f); and gas supplying means (224) for supplying a gas to a space separated by the plurality of optical elements, wherein, in a space separated by two refraction members (243f, 211) of said plurality of refraction members and containing said reflection member (210), a line connecting a vent hole (245g) for supplying a gas to the space and a vent hole (246g) for discharging the gas from the space intersects an optical axis of said optical system, as viewed from a direction orthogonal to the optical axes of said two refraction members.

Re clm 45: the line intersects the optical axis twice (Fig 1)

Re clm 48: ultraviolet light (Col 1 line 13)

Re clms 27,49: Ar2 laser (Col 23 line 48)

Re clm 50: Illumination system (Col 2 line 4)

Re clm 51: optical system is catadioptric (210,211)

Re clms 58,64,67,70: the above disclosed apparatus is capable of performing the claimed method steps.

Re clms 59,65,68,71: a production machine group (Inherent since the wafers "5" must come from some source), LAN and gateway (8)

***Allowable Subject Matter***

Claims 1-21,24,52-57 and 61-63 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose or suggest in regard to claims 1 and 14 a switching means for selectively using plural purifiers disposed in the gas circulation path, in regard to claim 24 an optical integrator all in conjunction with the rest of the claimed subject matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 23,26,60,66,69,72 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose or suggest in regard to claim 23 an optical integrator, in regard to claim 26 the fluorine compound, in regard to claims 60,66,69,and 72 preparing a maintenance database connected to an outside network all in conjunction with the rest of the claimed subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khaled Brown whose telephone number is 703-306-5738. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell E. Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

KB  
January 10, 2003



RUSSELL ADAMS  
SUPERVISORY PATENT EXAMINER  
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